Abstract:

A method of producing a self-hardening, bioabsorbable composite material, the material produced and its areas of application are described. The method is based on the principal method steps (I) immobilisation of a polymerisation initiator in a microporous pore system of a first partial amount of a bioabsorbable calcium phosphate used in producing the self-hardening, bioabsorbable composite material, (II) immobilisation of a polymerisation activator in the microporous pore system of a second partial amount of the bioabsorbable calcium phosphate used in producing the self-hardening, bioabsorbable composite material and (III) homogeneous mixing of the components according to (I) and (II) with a liquid or paste-form, multi-functional monomer capable of forming a biocompatible, bioabsorbable polymer network or a corresponding monomer mixture and, optionally, with further constituents which modify the properties of the monomer or monomer mixture. The described self-hardening, bioabsorbable composite materials can be used as bone adhesives for the fixing of bone fractures, as shaped pieces of standardised dimensions and as implants that are individual to a patient in the context of regenerative bone healing in humans and animals.